For discussion with
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6 October 1960

MEMORANDUM FOR THE RECORD

SUBJECT: Briefing for ITEK people on 6 October 1960

1. [redacted] were given a KH briefing on five selected graphics by [redacted] this morning. In the ensuing discussion Itek wanted to talk about the new equipment parameters for KH exploitation. The new equipment parameters were identified with a new lens which Itek has constructed on their own money for the "Bird". The new lense is a F-35 aperture 24" focal length with a capability of recording double the resolution of the present lense, or more specifically, 160 l/mm. Because of the increased aperture maintaining essentially the same slit width, the increase in light will allow exposure of materials such as SO-243 (200 l/mm capability). This should effectively place the detection threshhold for object size on the ground between 7' and 10'.

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2. The equipment parameters under these conditions would require a range of magnification between 15X and 40X. Because of the granularity difference between 1188 and SO-243, it is felt that 40X is not unreasonable within these parameters. They stated that this lense would be flying by June 1961 and that this improvement would require an entirely new family of exploitation equipment. They were interested in seeing that the equipment parameters would satisfy the Air Force as well as the Army, Navy and CIA. There were no answers to these questions by CIA/PIC personnel because, as we stated, these parameters were entirely new to us.

3. Roughly figuring, however, this throws us into the ballpark of 7200' of take at twice the resolution now being achieved. If this is accomplished, the exploitation problem will involve about 8 times as much looking as the present material. This estimate is based on a factor of 2 for the length of film times a factor of 4 for the area to be examined at the higher magnification. For example, if at 80 l/mm 20X gave a 9" x 9" area of 1/2" square of the material, 40X yielding a 9" x 9" printout size will exploit a 1/2" square on the materiel. The human factor of eye-balling being the same.

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